

**IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF VIRGINIA**
CHARLOTTESVILLE DIVISION

ALEXANDER STONE KRISTENSEN, a minor by
next friend, SUSAN LEIGH KRISTENSEN, and
KAIA VICTORIA KRISTENSEN, a minor by next
friend, SUSAN LEIGH KRISTENSEN

Plaintiffs,

v.

WILLIAM DAVID SPOTNITZ and DENISE
CONSTANCE SCHAIN

Defendants.

NO. 3:09-cv-00084

MEMORANDUM OPINION

JUDGE NORMAN K. MOON

Pending before the Court in this personal injury action are: (1) Defendants' Motion in Limine to Exclude Dr. Leonard Vance, Dr. Joseph Vilseck, Dr. Richard Lipsey, Dr. Elizabeth Frye, and Dr. Andrew Elgort (docket no. 121); (2) Plaintiffs' Motion in Limine to Exclude the Testimony of Proposed Defense Expert Daniel Sawyer as irrelevant, inflammatory, and not probative of the issues at trial (docket no. 139); and (3) Plaintiffs' *Daubert* Motion to Exclude the Testimony of Designated Defense Expert Daniel Sawyer (docket no. 144). The Court conducted a hearing to consider each of these motions on Tuesday, September 13, 2011, in Charlottesville, VA. I have considered the arguments and authorities set forth in the parties' filings, as well as the testimony and arguments presented at the hearing. For the reasons that follow, Defendants' Motion in Limine (docket no. 121) is DENIED; Plaintiffs' Motion in Limine (docket no. 139) is DENIED; and Plaintiffs' Motion in Limine (docket no. 144) is DENIED in part and GRANTED in part. I address each motion in turn after providing a short introduction.

I. BACKGROUND

This is a personal injury action arising out of alleged mold contamination of a residence owned by Defendants, but formerly occupied by Plaintiffs. The Plaintiffs, Alexander Stone Kristensen (“Alex”) and Kaia Victoria Kristensen (“Kaia”), are the minor children of Stein Kristensen (“Stein”) and Susan Leigh Kristensen (“Susan,” and collectively, the “Kristensens”). Plaintiffs brought two separate but closely related actions for damages in the Circuit Court for Albemarle County, Virginia. After removal to this Court, the cases were consolidated.¹ (docket no. 28).

As alleged, the facts are as follows: the Kristensens entered into an oral agreement to “house sit” for Defendants at Defendants’ Charlottesville home beginning in August 2000, and lasting for an indefinite period of time. Defendants had left the home and moved to Florida, where they established residence and currently reside. Under the terms of the agreement, in exchange for rent-free occupancy, the Kristensens would pay the utilities, provide security by their presence, and advise Defendants of any problems that might arise with the residence.

During the course of the Kristensens’ occupancy, they experienced several leaks in the roof of the house, most significantly surrounding a skylight. Plaintiffs’ father informed the Defendants about the leaks, and although Defendants knew or should have known that repairing the leaks, or allowing the Kristensens to repair them, was necessary to maintain a safe and habitable living environment, the Defendants failed to do so. Due to the resulting damp conditions, the house became infested with dangerous molds. After a long period of exposure to such molds, Plaintiffs fell ill and suffered serious injury.

¹ Civil actions nos. 3:09-cv-00084 and 3:09-cv-00085.

II. APPLICABLE LAW

Courts begin evidentiary analyses with the idea that “[a]ll relevant evidence is admissible, except as otherwise provided by the Constitution . . . , by Act of Congress, by [the Federal Rules of Evidence], or by other rules prescribed by the Supreme Court” Fed. R. Evid. 402.² “Relevant evidence” is liberally defined to include evidence which has “any tendency to make the existence of any fact that is of consequence to the determination of the action more probable or less probable than it would be without the evidence.” Fed. R. Evid. 401; *Daubert v. Merrell Dow Pharm., Inc.*, 509 U.S. 579, 587 (1993).

When it comes to expert testimony, a specific Rule governs admissibility. In its entirety, Rule 702 states:

If scientific, technical, or other specialized knowledge will assist the trier of fact to understand the evidence or to determine a fact in issue, a witness qualified as an expert by knowledge, skill, experience, training, or education, may testify thereto in the form of an opinion or otherwise, if (1) the testimony is based upon sufficient facts or data, (2) the testimony is the product of reliable principles and methods, and (3) the witness has applied the principles and methods reliably to the facts of the case.

Fed. R. Evid. 702. In its cases interpreting the Federal Rules of Evidence, the Supreme Court of the United States has reiterated that the Rules exhibit a “liberal thrust,” and undertake a “general approach of relaxing the traditional barriers to ‘opinion’ testimony. *Daubert*, 509 U.S. at 588 (quoting *Beech Aircraft Corp. v. Rainey*, 488 U.S. 153, 169 (1988)). In the Fourth Circuit, a “witness’[s] qualifications to render an expert opinion are also liberally judged” *Kopf v. Skyrn*, 993 F.2d 374, 377 (4th Cir. 1993).

Nevertheless, trial judges “must ensure that any and all scientific testimony or evidence admitted is not only relevant, but reliable.” *Daubert*, 509 U.S. at 589. Put another way, the trial

² Absent contrary Congressional action, the Federal Rules of Evidence, including the Rules cited herein, will be amended, effective December 1, 2011. The proposed amendments, though, are “stylistic only[,]” and evince “no intent to change any result in any ruling on evidence admissibility.” See, e.g., Fed. R. Evid. 702 advisory committee’s note.

judge has a “gatekeeping” obligation to exclude unreliable expert testimony. *Id.* In accordance with that instruction, the Court in *Daubert* set forth a non-exhaustive set of relevant factors that trial judges should consider when deciding whether to admit or exclude scientific testimony: 1) whether the theory or technique can be, and has been, tested; 2) whether the theory or technique has been subjected to peer review and publication; 3) the known or potential rate of error for particular scientific techniques; 4) the existence and maintenance of standards controlling the technique’s operation; and 5) the general acceptance of the theory or technique in the scientific community. *Id.* at 593–94. *Daubert*’s analysis applied to “scientific” testimony has also been extended to the other varieties of testimony mentioned in Rule 702, i.e., testimony based on “technical” or “other specialized” knowledge. *Kumho Tire Co. v. Carmichael*, 526 U.S. 137, 149 (1999). The inquiry, though, remains flexible, and district courts have broad latitude not only in making their ultimate reliability conclusions, but also in deciding how to make those conclusions, i.e., which factors to consider. *Id.* at 142.

The *Daubert* Court expressed its confidence that the foregoing interpretation of Rule 702 would prevent the admittance of “irrational pseudoscientific assertions” that could befuddle and confound juries. *Daubert*, 509 U.S. at 596. Moreover, the Court noted that the adversary process and parties’ traditional means of attacking shaky testimony resting on inadmissible evidence, including “vigorous cross-examinations, presentation of contrary evidence, and careful instruction on the burden of proof” would continue to be sufficient. *Id.*; *see also Rock v. Arkansas*, 483 U.S. 44, 61 (1987) (elaborating on traditional methods of attacking shaky, but otherwise admissible, testimony).

Daubert and Rule 702 also require courts to determine whether an expert’s testimony will assist the trier of fact. “This is essentially a relevancy inquiry; the expert’s theory and method

must have a relevant relationship with the facts at issue in the case, described by the Supreme Court as a ‘fit.’” *In re Bausch & Lomb, Inc. Contact Lens Solution Prods. Liab. Litig.*, No. 2:06–mn–77777–DCN, 2009 WL 2750462, at *10 (D.S.C. Aug. 26, 2009) (citing *Daubert*, 509 U.S. at 591).

III. DISCUSSION

A. Defendants’ Motion in Limine

Defendants oppose the admissibility of opinion testimony to be given by five of Plaintiffs’ designated expert witnesses. The parties have submitted briefs supporting their arguments pertaining to each expert. At the September 13 hearing, Defendants called their own expert, Dr. Hung K. Cheung, to testify regarding alleged deficiencies inherent in each opposing expert’s conclusions. Pursuant to the analysis set forth below, I will deny Defendants’ Motion in Limine in full. I address each of Plaintiffs’ experts in turn.

1. Dr. Leonard Vance

Plaintiffs seek to have Dr. Leonard Vance (“Vance”)³ testify to the (1) existence of excessive mold⁴ in the subject residence; (2) presence of volatile organic compounds (VOCs); and (3) general adverse health effects of mold.⁵ Defendants object to this proposed testimony, contending that the first two conclusions are not supported by sufficient facts under Rule 702, and that the third conclusion is improper because of Vance’s lack of medical training. I find that Dr. Vance’s opinion testimony as to all three of his conclusions is admissible under the law.

³ Vance is a Certified Industrial Hygienist. See Part 1.c, *infra*, for other qualifications.

⁴ Defendants’ brief states that Vance will testify to the “excessive moisture” in the residence. However, the briefing focuses on Vance’s conclusions concerning mold—not moisture—levels. While the parties did focus more on moisture levels at the hearing, my sense is that moisture in the home is more or less undisputed. In fact, Defendants’ expert Dr. Cheung acknowledged at the hearing that there had been excessive water in the home. I therefore focus on Vance’s testimony regarding excessive mold.

⁵ Plaintiffs initially expected Vance to also testify to the presence of mycotoxins in the home. Both parties addressed the issue in their briefs and argued it at length during the hearing in Charlottesville; however, Plaintiffs’ counsel subsequently advised the Court that Plaintiffs no longer seek to have any expert testify about the presence or absence of mycotoxins. Therefore, I consider the issue resolved.

a. Excessive Moisture and Mold in the Residence

According to Defendants, Vance's seeks to make the unfounded assertion that mold levels in the house were dangerously high. They indicate, rightly, that Vance could not define what a safe quantitative measure of mold in a home might be, and that he could not quantitatively describe the mold in the subject residence. Vance Dep. at 14–15. Defendants surmise that this is particularly troublesome because Vance acknowledged that mold spores are ubiquitous. *Id.* Accordingly, Defendants analogize this case to *In re Bausch & Lomb*. There, the district court excluded expert testimony to the effect that Bausch & Lomb's "MoistureLoc" contact lens cleaning product increased the risk of corneal infection from certain microbes. Plaintiffs' expert had concluded that because *in vitro* tests showed that the product lost its anti-bacterial efficacy over time, it was "capable of contributing to . . . infections." *Id.* However, the court reasoned that:

Plaintiffs have not identified, or even suggested, a threshold level of microbes necessary to actually cause an onset of . . . infection. While such a level is important in the abstract, it is critical in this litigation, since a very small minority of contact lens wearers get infections in light of the sizable majority of contact lens cases that are contaminated at any given time. Plaintiffs' theory assumes, without evidence, that any increase in the microbial load causes infection. In the absence of a reliable evidentiary basis to connect any loss of efficacy/increase in the microbial load with causation in humans, plaintiffs' expert opinions amount to speculation and potentialities.

Absent identifiable thresholds, Defendants argue, the Court and jury are asked to rely on Vance's word alone on what constitutes a dangerous level of mold in a residence.

Notably, the Fourth Circuit rejected a similar analysis in *Westberry v. Gislaved Gummi AB*, 178 F.3d 257 (4th Cir. 1999). There, the defendant sought to exclude the testimony of plaintiff's expert concerning the effects of talc on the sinuses because "he had no means of accurately assessing what level of exposure was adequate " to produce ill health effects. *Id.* at 263. The Fourth Circuit reasoned that:

[o]nly rarely are humans exposed to chemicals in a manner that permits a quantitative determination of adverse outcomes Human exposure occurs most frequently in occupational settings where workers are exposed to industrial chemicals like lead or asbestos; however, even under these circumstances, it is usually difficult, if not impossible, to quantify the amount of exposure.

178 F.3d at 264 (citing Federal Judicial Center, *Reference Manual on Scientific Evidence* 187 (1994)). Thus, the court determined that while knowing the specific exposure levels necessary to cause human harm might be beneficial, it is not always necessary where there is “substantial exposure.” *Id.*⁶

Plaintiffs concede, as they must, that they offer no quantitative assessment of the mold levels in the house, and that Vance has offered no quantitative threshold limit values for mold. Indeed, Vance admitted “that there are no threshold limit values or permissible exposure limits for mold, mold fragments, or the products that give off gas from mold.” Vance Dep. at 30. Instead, Vance testified, “[t]he standard is visible mold.” *Id.* at 42. In addition, Plaintiffs proffer several articles for the proposition that the presence of visible mold, along with excessive moisture, is sufficient to conclude that a dangerous level of mold growth exists. *See* Pls.’ Opp’n at 7–8. For instance, the World Health Organization’s (“WHO”) *Guidelines for Indoor Air Quality: Dampness and Mould* (2009), Pls.’ Opp’n. Ex. 13, states in part that “occupants of damp or mouldy building . . . are at increased risk of respiratory symptoms” *Id.* at xiii. It further notes that “[i]ndicators of dampness and microbial growth include the presence of . . . visible mould,” and proceeds to recommend remedial measures when dampness and mold problems are identified. *Id.* at xiv.

Plaintiffs also rely on documentation from the Occupational Health & Safety Administration (“OSHA”) and the American Society for Testing and Materials (“ASTM”).

⁶ “Substantial exposure” in *Westberry* was evident. Testimony indicated that talc was released into the air in the plaintiff’s work environment, and that when it settled it was thick enough that the plaintiff could leave boot prints on the floor. 178 F.3d at 264.

OSHA's *Preventing Mold-Related Problems in the Indoor Workplace*, OSHA 3304–04N, 13 (2006), indicates that “[w]hen visible mold is present, cleanup can proceed on the basis of visual inspection. Sampling for molds and other bioaerosols is not usually necessary.” Pls.’ Opp’n. at 10 n.4. Furthermore, Plaintiffs have presented authority for the proposition that quantitative evaluation is counterproductive. The ASTM’s Standard *Guide for Readily Observable Mold and Conditions Conducive to Mold in Commercial Buildings*, ASTM E2418–06 (Mar. 2006) states,

As noted by EPA . . . , sampling cannot be used to assess whether a . . . building complies with federal standards, since no EPA or other federal standards . . . have been established for mold spores. And, sampling would only produce results reflecting a *specific moment in time* in the best case and could produce inaccurate or misleading results in the worst case.

Pls. Opp’n Ex. 4 at 1.

In their reply brief, Defendants note that neither the WHO or OSHA documents explicitly determine “that visible mold is considered excessive.” Defs.’ Reply at 2. Instead, the documents refer to visible mold as merely an indicator of a potential problem. Defendants therefore conclude that “[s]imply because visible mold should be remediated does not mean that the level of mold would cause ill-health effects.” *Id.* I am hesitant to adopt this line of argument. The World Health Organization and Occupational Safety and Health Administration are charged with setting standards for public health—not aesthetics. If the presence of visible mold suggests remediation under both OSHA and WHO guidance, it stands to reason that visible mold presents a health concern. While it should be noted that the documents cited are not scientific, peer-reviewed studies, and it is not clear what methods were relied upon to arrive at the visible mold criterion, it is at least clear that there is a consensus among various governmental and other standard setting agencies (e.g., OSHA, WHO, ASTM, EPA) that visible mold is a danger to human health. Notably, also, the state of Virginia requires a landlord to

“perform mold remediation in accordance with professional standards” where “visible evidence of mold occurs within [a] dwelling unit.” Va. Code § 8.01–226.12.⁷

Because Plaintiffs will present evidence that they were exposed to visible mold, I find that Plaintiffs could sufficiently show “substantial exposure,” and thus need not present evidence of specific exposure levels or threshold limit values. *Westberry*, 178 F.3d at 264. Accordingly, I hold that Vance’s methodology withstands *Daubert* scrutiny, as applied in *Westberry*, and he can therefore offer his opinion testimony that excessive moisture, or excessive mold, or both, existed in the residence.

b. Volatile Organic Compounds

Defendants further seek to preclude Vance from testifying to the presence of Volatile Organic Compounds (“VOCs”) in the residence. Vance opined that VOCs were present in the house, although the house had not been tested for VOCs. Vance Dep. at 21, 29. He surmised that they were present because of the existence of VOC-producing molds. Vance Dep. at 29. Moreover, according to Vance, “[t]he odors that [Plaintiffs] have described are the odors that are typically associated with microbial VOCs—a musty odor.” *Id.* Defendants do not appear to challenge the assertion that microbial VOCs are associated with a musty odor.

Defendants object to the fact that Vance did not identify a threshold level of VOCs that would be dangerous to human health. Defendants contend that the “danger” threshold level of VOCs far exceeds the “smell” threshold level. While that may be true, I note that Vance’s deposition testimony does not appear to address whether VOC levels in the house were dangerous or whether they were merely high enough to be noticed by the human nose. Vance merely testified that VOCs were present, and his opinion appears to be well supported. Again,

⁷ As used in that section, “professional standards” include those set forth in guidance by the EPA and a variety of other organizations. See Va. Code § 8.01–226.12(A).

Defendants do not appear to challenge that assertion, and I therefore hold that a sufficient factual basis exists for Vance to provide his opinion that the musty odor in the home indicated that VOCs were present.

c. Health Effects of Mold Contamination

Finally, Defendants seek to preclude Vance from offering an opinion on the health effects of mold contamination because he lacks medical training. In his report, Vance states:

All molds have the potential to cause health effects, and molds produce allergens, irritants, and in some cases toxins. It is well established that mold and the related moisture exposure conditions can cause irritation of the skin, eyes, throat and upper respiratory tract as well as allergic reactions. Although all molds are allergic, some types of mold have long been associated with adverse human health effects inside homes.

Vance Report at 2 (citations omitted). Vance concedes that he is not qualified to testify as to whether the Plaintiffs suffer or suffered from these conditions. Vance Dep. at 33. Therefore, according to Defendants, “any opinion regarding health effects is unreliable.” Defendants further argue that the proposed testimony is irrelevant, and “nothing more than a ‘scare tactic’ to inflame the jury” Defs.’ Br. at 8.

I do not find merit in Defendants’ arguments. Vance’s opinion appears to be well within his expertise. He is a Certified Industrial Hygienist. According to the American Board of Industrial Hygiene, “industrial hygiene is the science of protecting and enhancing the health and safety of people at work and in their communities. . . . Anticipation, recognition, evaluation and control of hazards have always been the prime goal for the industrial hygiene professional.” American Board of Industrial Hygiene (Sept. 16, 2011), <http://www.abih.org/general/cihcai.html>. Vance teaches graduate courses in occupational and environmental health and safety at Virginia Commonwealth University. It is apparent that the literature germane to his field touches on the health effects of mold, in general. In reaching the above referenced conclusion,

Vance relied on published guidance from the EPA's *Mold Remediation in School and Commercial Buildings* (2001), Pls.' Opp'n. Ex. 5, and the Centers for Disease Control's *Mold Prevention Strategies and Possible Health Effects in the Aftermath of Hurricanes and Major Floods* (June 9, 2006), Pls.' Opp'n. Ex 12. Thus, Vance's testimony concerning the general health effects of mold exposure appears to be well founded.

Defendants argue that Vance's testimony concerning the health effects of mold is irrelevant; however, the effect of mold on human health is relevant to the question of whether Defendants were negligent. Defendants argue that *Garlinger v. Hardee's Food Sys., Inc.*, 16 F. App'x 232 (4th Cir. 2001) supports a contrary finding. There, the Fourth Circuit upheld the exclusion of a thermodynamics expert's testimony that coffee served at temperatures between 180 and 190 degrees Fahrenheit could result in burns. The Fourth Circuit found that "although [the expert's] testimony may be accurate, it fails to address the key question of whether it was *unreasonable* for Hardee's to serve coffee at that temperature." *Id.* at 236. The court's decision, however, recognized the consensus between the parties that coffee served at high temperatures was more likely to burn patrons than coffee served at lower temperatures. *Id.* In view of this fairly obvious conclusion, the expert's testimony would not "assist the trier of fact." Fed. R. Evid. 702. In the instant case, however, the effects of mold exposure are neither agreed upon by the parties nor obvious to the trier of fact. *See* Defs.' Br. at 12.

In sum, I find that Dr. Vance's proposed testimony relating to 1) excessive moisture, or excessive mold, or both in the home, 2) the presence of VOCs in the home, and 3) the general health effects of mold exposure meets the reliability hurdles set forth by *Daubert* and related cases. I therefore hold that Dr. Vance's conclusions are admissible at trial.

2. Dr. Joseph Vilseck

Defendants seek to preclude Dr. Joseph Vilseck (“Vilseck”), a medical expert, from presenting general and specific causation evidence for the Plaintiffs. According to Defendants, Vilseck’s testimony is not based on generally accepted causation criteria, but rather based on Vilseck’s own unique and untested methodology. Defendants allege that Vilseck’s differential diagnosis fails to consider and rule out alternatives. They also assert that Vilseck’s failure to identify the species of molds in the Plaintiffs’ house renders his analysis unreliable. Finally, Defendants challenge, as unsupported, Vilseck’s conclusion that exposure to molds can result in allergy sensitization. I find, however, that Vilseck’s testimony is admissible.

a. Vilseck’s Methodology

Defendants aver that the methodology originally developed by Sir Bradford Hill is the accepted standard for making a causal connection between an environmental agent and a medical condition. Hill’s analysis requires consideration of (i) temporality, (ii) strength of association, (iii) replicability, (iv) dose-response relationship, (v) cession of exposure, (vi) consistency (consistent findings observed by different persons in different places with different samples strengthens the likelihood of an effect), (vii) consistency with the facts in this matter, and (viii) alternatives. According to Defendants’ expert, Dr. Cheung, Vilseck fails “to analyze factors such as timing, duration, exposure or dose in relationship to the various health triggering sources or agents when making his causation assessment. The sporadic nature of the manifestation of alleged allergy symptoms is not consistent with their allegations of a chronic and wide spread source or sources within the house.” Cheung Report at 19.

Vilseck’s expert report followed a different methodology, considering instead (1) allergic response; (2) contemporary illness among all family members in the same building; (3) the type of molds in the subject unit; and (4) exposure. Vilseck Rep. at 4–5.

I find that Vilseck’s analysis withstands scrutiny under *Daubert* because each of the individual factors that Vilseck describes withstands scrutiny itself. As to the first factor, the EPA’s *Mold Remediation in Schools and Commercial Buildings* (2001) indicates that “[m]old exposure can cause irritation of the eyes, skin, nose, throat and lungs, and sometimes can cause a burning sensation in these areas.” Vilseck found that the Plaintiffs’ condition, as reported by treating physicians, was “completely consistent” with such symptoms, and those described in the Institute of Medicine of National Academics’ publication, *Damp Indoor Spaces* (2004). See Pls.’ Opp’n. Ex. 10. As to the third factor, it is well established that *Aspergillus*, *Penicillium*, and *Stachybotrys*—all of which were found in the subject residence—are indicative of a damp indoor environment and can cause the medical symptoms described. See, e.g., Centers for Disease Control, *Mold Prevention Strategies and Possible Health Effects in the Aftermath of Hurricanes and Major Floods*, at 7; WHO, *Guidelines for Indoor Air Quality*, at 209. Moreover, the second and fourth factors that Vilseck considered suggest causality as a matter of logic.

Rule 702 does not require an expert to furnish a perfect analysis, or the best available analysis, provided that the expert’s technique is sufficiently reliable and assists the trier of fact. I find that both requirements for admissibility are met. If Vilseck could have used a better methodology, Defendants are free to introduce evidence to that effect at trial.

b. Vilseck’s Differential Diagnosis

A differential diagnosis “is a standard scientific technique of identifying the cause of a medical problem by eliminating the likely causes until the most probable one is isolated.” *Westberry*, 178 F.3d at 262. “A medical expert’s opinion based upon differential diagnosis normally should not be excluded because the expert has failed to rule out every possible alternative cause of a plaintiff’s illness.” *Cooper v. Smith & Nephew, Inc.*, 259 F.3d 194, 202

(4th Cir. 2001). Ordinarily, “[t]he alternative causes suggested by a defendant affect the weight that the jury should give the expert’s testimony and not the admissibility of that testimony unless the expert can offer ‘no explanation for why she has concluded [an alternative cause offered by the opposing party] was not the sole cause.’” *Westberry*, 178 F.3d at 265 (quoting *Heller v. Shaw Indus. Inc.*, 167 F.3d 146, 156 (3d Cir. 1999)). Moreover, a “differential diagnosis that fails to take serious account of other potential causes may be so lacking that it cannot provide a reliable basis for an opinion on causation.” *Westberry*, 178 F.3d at 265.

In *Perkins v. United States*, 626 F. Supp. 2d 587, 594 (E.D. Va. 2009), the differential diagnosis did not bear the court’s scrutiny. Plaintiff sought to introduce expert testimony that his injuries were caused by an automobile accident. The court, however, excluded the testimony because the plaintiff’s expert did not explain how he ruled out osteoarthritis, degenerative joint diseases, and obesity as potential alternative causes. Thus, the court found a “fatal gap” in the analysis. *Id.* at 594. In *Cooper*, plaintiff’s expert intended to testify that a medical device was the proximate cause of plaintiff’s failed spinal fusion surgery, which resulted in a non-union at the L5-S1 vertebrae. However, the court excluded the testimony because the expert failed to address defendants’ claim that smoking was a likely cause of the nonunion. Moreover, the record was “replete with evidence that smoking can cause nonunions to occur.” *Id.* at 202. Although plaintiff’s expert had read two articles linking smoking to nonunion, he rejected them as unpersuasive in conclusory fashion. *Id.* at 203.

Defendants attack the reliability of Vilseck’s differential diagnosis because of his failure to consider whether Alex’s respiratory problems could be attributable to dust mites. They contend that the medical records of Dr. Gary P. Rakes, attached to Defendants’ brief as Exhibit H, show a dust mite allergy. Plaintiffs challenge that characterization, noting that in reviewing

the Rakes records, Vilseck stated, “he didn’t show mite – not much.” Vilseck Dep. at 46.

Indeed, Rakes’s records state clearly that skin testing revealed “equivocal responses to dust mites.” On the other hand, Vilseck’s own testing confirmed that “[Alex’s] worst reaction was to dust mite.” Vilseck Dep. at 58.⁸

The differential diagnosis section of Vilseck’s expert report is quite limited. It states, in full:

I have considered other possible causes and ruled them out. Because of their ages, neither smoking nor alcohol use are issues. The medical records reflect no chronic disease at the time, nor currently. Alex does have significant psychological problems but they occurred after the family problems developed with leaving the home, losing their belongings and subsequent family stresses.

Vilseck Report at 6. Notably, in his deposition, Vilseck stated that the children are atopic, meaning “very allergic.” Vilseck Dep. at 87. He states that Kaia is allergic to grasses, weeds, mold, cockroach, dust mite, dog, cat, fish, wheat, corn, orange, peanut, and carrot. *Id.* at 79, 80:1–14. Alexander was allergic to oak tree, grasses, several weeds, mold, dust mites, horse, cat, pork, string bean, lamb, lima beans, pineapple, raspberry, spinach, tomato, and apricot. *Id.* at 57:2–25 to 58:10–17. However, neither the expert report nor his deposition explicitly shed light on why Vilseck eliminated those allergies as a cause of Plaintiffs’ symptoms. Furthermore, Plaintiffs’ briefing does not explain why Vilseck’s differential diagnosis is sufficient in light of Vilseck’s omission of such an analysis.

On the other hand, it does not appear that Vilseck was explicitly asked why he ruled out those allergies. In *Heller*, which influenced the Fourth Circuit in *Westberry*, the Third Circuit indicated that an expert’s failure to articulate why he ruled out plausible alternative causes is

⁸ Plaintiffs point out that damp indoor spaces are also hospitable to dust mites. Institute of Medicine, *Damp Indoor Spaces and Health* (2004), at 1. But this does nothing to buttress Vilseck’s conclusion that mold caused the Plaintiffs’ illness.

fatal “where a defendant points to a plausible alternative cause” *Heller*, 167 F.3d at 156 (quotation omitted). In Vilseck’s deposition, Defendants’ counsel confronted him with evidence that Plaintiffs suffered from various non-mold allergies, but Vilseck was never asked to clarify why he ruled out those allergies as potential causes of Plaintiffs’ symptoms. Thus, the instant case is distinguishable from *Cooper*, where the plaintiff’s expert was asked to confront literature that suggested his opinion was incorrect, and the expert’s only rejoinder was a conclusory statement of disagreement.

Also noteworthy in *Cooper*, as in *Perkins*, the expert’s improper differential diagnosis analysis was part of a series of defects in the expert’s testimony. In *Cooper*, the testimony amounted to “a wholly conclusory finding based upon [the expert’s] subjective beliefs rather than any valid scientific method.” 259 F.3d at 200. The expert conceded that his evaluation of the plaintiff was inconsistent with the diagnostic methodology he followed in his own private practice. Moreover, he neglected to do a physical exam of the plaintiff. See *Westberry*, 178 F.3d at 262 (“A reliable differential diagnosis typically . . . is performed after physical examinations, the taking of medical histories, and the review of clinical tests, including laboratory tests.”) (quotations omitted). In *Perkins*, the expert relied wholly on the plaintiff’s self-reporting, and was unaware of several prior accidents that might have explained the plaintiff’s injuries 626 F. Supp 2d at 593. Here, on the other hand, Vilseck performed clinical testing on the Plaintiffs, and reviewed various medical records. Moreover, his conclusions appear to be consistent with documentation from various authoritative sources. I find that Vilseck’s differential diagnosis is therefore more reliable than that of the experts in the cases cited above which excluded expert testimony, and is admissible at trial.

c. Vilseck's Mold Species Testing

Defendants contend that Vilseck's testimony is unreliable because he did not test the Plaintiffs for the particular species of molds present in the house. Vilseck concedes that there are hundreds of species of mold belonging to the genera *Penicillium* and *Alternaria*, for instance, and that different species can yield opposite reactions in a skin test. Vilseck Dep. at 49–51. Vilseck, however, did not test the children using species that were present in the house; he simply took the species provided by the laboratory. *Id.* at 58.

It appears, though, that the allergy testing had little bearing on Vilseck's opinion. When asked whether he knew the species of mold growing in the subject residence, Vilseck responded:

No. Well, you know the genera. And so what's the difference? If you knew the species it's not going to gain you anything. Because, if you say to me, was it an allergic reaction? I'd say, it does have to be an allergic reaction Because look at the periodic fevers [and peribronchial thickening] Now a wide range of substances can cause these problems. . . . Why would they both have [the same symptoms]? . . . They both live in the same house? Yes.

Vilseck Dep. at 52. Moreover, Vilseck's expert report relies very little on testing, stating “[t]he children did not test positive for many molds Skin testing for allergies in infancy is difficult and the skin testing done at the time is just not reliable.” Vilseck Report at 6. Because this issue does not appear to have weighed heavily on Vilseck's conclusions, I do not find it to be a compelling criticism of the tests he performed.

d. Vilseck's Allergy Sensitization Theory

Finally, Defendants object that Vilseck's theory of allergy sensitization—that exposure to allergens such as mold can result in the development of allergies over time—is unfounded. *See* Vilseck Dep. at 40:20. According to Defendants, “this opinion is based solely on one sentence out of all the medical literature on this topic.” Defs.' Br. at 11. At Vilseck's deposition, when questioned about allergy sensitization theory, Vilseck referred to the EPA's *Mold Remediation in*

Schools and Commercial Buildings (2001), which states “[r]epeated or single exposure to mold or mold spores may cause previously nonsensitive individuals to become sensitive.” Vilseck did not cite any other literature in his deposition for sensitization theory. However, Plaintiffs point out that the theory has been discussed elsewhere. For instance, the University of Connecticut’s guide for clinical mold exposure assessment states that:

Individuals’ immune responses to these antigenic molecules [aerosols] are determined by their genetic makeup and environmental factors. Important among these factors are the frequency of exposure to the antigens and the intensity of the exposures. . . . Once sensitization to an antigen has developed, it requires a much lower concentration upon exposure to elicit the reactive phase that we recognize as the clinical manifestation of the disease

Storey, Eileen, et al., *Guidance for Clinicians on the Recognition and Management of Health Effects Related to Mold Exposure and Moisture Indoors*, Univ. of Conn. Health Center, Div. of Occupational and Env’tl. Med., Ctr. for Indoor Env’ts and Health (Sept. 20, 2004). It further adds that “One distinguishing feature is that with repeated exposures, allergic symptoms become increasingly worse because of increased sensitization.” *Id.* at 27.

Defendants contend that a number of publications, including *Damp Indoor Spaces*, the *World Health Organization Indoor Air Quality Guidelines*, and the American Academy of Allergy, Asthma and Immunology’s 2006 report, *The Medical Effects of Mold Exposure*, cast doubt on Vilseck’s sensitization claims. Defs.’ Br. at 12. This is true; however, an inconsistency in the literature goes to the weight of the evidence, not its admissibility, and I do not find Defendants’ alternative citations compelling enough to exclude Vilseck’s testimony on the sensitization point.

In sum, I find none of the Defendants' arguments compelling enough to exclude Dr. Vilseck's testimony, in whole or in part. To the extent that Defendants' experts disagree with Vilseck's methodology or conclusions, Defendants are free to elicit that testimony.⁹

3. Dr. Richard Lipsey

Defendants also seek to exclude the testimony of toxicologist Dr. Richard Lipsey ("Lipsey"), arguing (1) that he is unqualified to offer a medical causation opinion; (2) that opinions regarding the presence of mycotoxins and VOCs are unsupported; and, relatedly (3) that his opinion of the presence of high levels of *Stachybotrys* is unsupported. I do not agree.

a. Lipsey's Qualifications

Lipsey is a toxicologist. He testified that he will rely upon the Koch Postulate and the Bradford Hill criteria to opine that the Plaintiffs' symptoms are consistent with mold exposure. Lipsey Dep. at 16. He also characterized the Plaintiffs' case as a "classic mold poisoning case." *Id.* at 16:19–21.

Defendants submit that "it is generally understood that when an expert offers a medical causation opinion, the expert must have a medical degree or medical training." Defs.' Br. at 13 (citing *Goodwin v. MTD Prods., Inc.*, 232 F.3d 600 (7th Cir. 2000); *Estate of Harvey v. Roanoke City Sheriff's Office*, 585 F. Supp. 2d 844 (W.D. Va. 2008); *John v. Im*, 559 S.E.2d 694, 697 (Va. 2002)). The Supreme Court of Virginia has held that an expert in biomechanical engineering who is not a medical doctor is not qualified to render an opinion on the cause of a plaintiff's back

⁹ Upon Defendants' request, I have reviewed *Sanders v. UDR*, No. 3:10cv459, 2011 WL 2669977 (E.D. Va. June 30, 2011), a recent mold exposure case decided after a bench trial in the Eastern District. The case is noteworthy to Defendants because of the criticisms that Judge Cacheris levied upon Dr. Vilseck's testimony in the case. For instance, Judge Cacheris noted that "[c]ompared with Dr. Vilseck, Defendant's . . . expert . . . struck this Court as more competent and vastly more credible." *Id.* at *7. Moreover, Judge Cacheris pointed to the possibility of an outright conflict of interest arising out of Vilseck's testimony, given that the plaintiffs in the case had not paid Vilseck for the medical services he provided, and, as such, Vilseck was an expert witness testifying for a contingency fee, of sorts. These criticisms are substantial, but I note that no such conflict of interest has been alleged in the instant matter. Furthermore, I find it important that Vilseck did, in fact, testify in *Sanders*, i.e., Judge Cacheris did not exclude his testimony.

injury. *Combs v. Norfolk and W. Ry. Co.*, 507 S.E.2d 355, 358–59 (1998). It has likewise determined that a licensed psychologist cannot opine as to the cause of a plaintiff’s brain trauma. *John v. Im*, 559 S.E. 2d at 697. However, trial courts in Virginia have not closely adhered to the teaching of those cases. *See Creekmore v. Maryview Hosp.*, No. 2:08–cv–235, 2008 WL 5100110, at *10 (E.D. Va. Dec. 2, 2008) (discussing cases).

In any event, in this Court, the Federal Rules of Evidence, and not Virginia law, govern the admissibility of evidence. In a recent case, Judge Conrad excluded an expert’s opinion as to the standard of care for medical doctors where the expert was a licensed clinical psychologist. *Estate of Harvey*, 585 F. Supp. 2d at 863. However, Judge Conrad also noted that an expert who is not a medical doctor might be “otherwise qualified” to give medical causation testimony. *Id.* (citing *Perdue v. Ford Motor Co.*, 1998 U.S. Dist. LEXIS 8138, at * 13 (W.D. Va. Feb. 26, 1998)). Other courts within the Fourth Circuit have reached similar conclusions. *See, e.g., Kitzmiller v. Jefferson Supply Co.*, No. 2:05–cv–22, 2006 WL 2473399 (N.D.W. Va Aug. 25, 2006) (holding that a toxicologist/pharmacologist’s evaluation of Bradford Hill criteria was admissible); *Creekmore*, 2008 WL 5100110, at *10 (permitting nurse to testify as to medical causation opinion). Moreover, the Fourth Circuit’s instruction that an expert’s qualifications be “liberally judged,” *Kopf v. Skyrn*, 993 F.2d 374, 377 (4th Cir. 1993), cautions against adopting a per se exclusionary rule of the type that Defendants envision.

Furthermore, at least two federal appellate courts have held that toxicologists may be qualified to give medical causation testimony. In *Paoli R.R. v. Monsanto Co.*, 916 F.2d 829 (3d Cir. 1990), the Third Circuit found that the district court abused its discretion in concluding that a toxicologist could not testify that PCBs caused the plaintiffs injuries:

The district court’s insistence on a certain kind of degree or background is inconsistent with our jurisprudence in this area. The language of Rule 702 and the accompanying

advisory committee notes make clear that various kinds of “knowledge, skill, experience, training, or education” . . . qualify an expert as such.

916 F. 2d at 855. In *Genty v. Resolution Trust Corp.*, 937 F.2d 899 (3d Cir. 1991), the court likewise concluded that a toxicologist could testify that plaintiffs’ illnesses could have resulted from substances emanating from a landfill. The court held that “[m]edical doctors . . . are not the only experts qualified to render an opinion as to the harm caused by exposure to toxic chemicals.” *Id.* at 917. The Eight Circuit has reached similar conclusions. See *Bonner v. ISP Techs., Inc.*, 259 F.3d 924, 928–31 (8th Cir. 2001); *Loudermill v. Dow Chem. Co.*, 863 F.2d 566, 569–70 (8th Cir. 1988).

Notably, Defendants have not challenged Lipsey’s qualifications in other respects. As summarized in his expert report, Lipsey received his Ph.D. from the University of Illinois in toxicology, the study of the adverse effects of chemicals on living organisms. He has consulted in toxicology for the EPA and USA, and is a peer reviewer for the journals of American College of Toxicology, American Cancer Society and the Society of Environmental Toxicology and Chemistry. He is also a member of the Society of Toxicology and the American College of Toxicology, each of which require members to be reviewed by peers in the toxicology field. He has sampled about 1,000 mold contaminated homes over thirty-five years for plaintiffs, defendants, insurance companies, and federal and state agencies, and he has written over 100 remediation protocols, mostly for insurance companies. He also exhibits familiarity with authoritative publications in the field. He therefore appears to be well qualified to testify to the effects of mold on human health. Notably, also, he applies Defendants’ favored causation methodology, the Bradford Hill criteria.

b. Lipsey's Opinions Regarding VOCs

Defendants' criticisms concerning Lipsey's opinions as to VOCs are similar to those leveled at Vance (*see* Part III.A.1, *supra*).¹⁰ Like Vance, Lipsey opined, with a high degree of scientific certainty, that the house contained VOCs. Lipsey Dep. at 55.

It is true, as Lipsey concedes, that there was no "clinical proof" of VOCs in the house, because nobody directly tested for VOCs. *Id.* Lipsey did state, however that "VOCs would be in the home . . . [b]ecause you had high levels of *Stachybotrys* that live on organic matter" *Id.* Lipsey went on to state that permissible exposure limits have been established by OSHA for every major VOC. *Id.* at 56. I am convinced that Lipsey's opinion regarding the presence of VOCs in the home, which he asserts with a high degree of scientific certainty based on what he knows about the residence, is sufficiently reliable to withstand *Daubert* scrutiny.

c. Lack of VOC Sampling

Defendants further state that the factual predicate to Lipsey's VOC analysis is flawed because there was no quantitative sampling of mold in the house. That is, the laboratory finding on which Lipsey relied merely stated that the mold content was qualitatively "heavy." Lipsey Dep. at 73. Relying on his experience, Lipsey contends that "heavy" generally means over a million spores per gram of dust or dirt, and the term can even signify as many as tens of millions of spores per gram. Lipsey Dep. at 72. According to Lipsey, this exceeds safe levels. *Id.* Further, Lipsey testified that "heavy" is a term that is used "by every lab." Lipsey Dep. at 73. It follows that the sort of qualitative assessment on which Lipsey relied is commonplace in his industry. Defendants have presented no evidence to the contrary. I find that Lipsey's opinions

¹⁰ Here again, Plaintiffs initially sought to have Dr. Lipsey testify to the presence of mycotoxins. Because Plaintiffs no longer expect any expert to testify as such, the issue is resolved. *See* note 5, *supra*.

on VOCs based on his qualitative assessment comport with the fifth factor provided by *Daubert*, and are therefore admissible at trial.

4. Dr. Elizabeth Frye

Defendants also object to the testimony of Plaintiffs' treating physician, Dr. Elizabeth Frye ("Frye"), alleging that Frye's testimony is objectionable because she "examined and treated the plaintiffs based solely upon the reports of mold by Susan Kristensen." Defs.' Br. at 15. Frye acknowledged that she never saw any direct proof that mold was in the home. Frye Dep. at 21. According to Defendants, it follows that Frye did not "employ[] in [litigation] the same level of intellectual rigor that characterizes the practice of an expert in the relevant field." *Kumho*, 526 U.S. at 152.

Defendants analogize this case to *Perkins*, 626 F. Supp. 2d at 592–94, where, as discussed above, the court excluded a treating physician's causation testimony where (1) he based his opinions solely on Perkins's self-report that the injuries were caused by a particular motor vehicle accident; (2) he failed to investigate Perkins's relevant medical history; and (3) he failed to consider alternate explanations for Perkins's ailments. The analogy to *Perkins* is imperfect. While the doctor in *Perkins* took the plaintiff at his word that his injuries were caused by a particular accident, Frye merely took Plaintiffs at their word that there was mold in the house. See Frye Dep. at 32. Defendants insist that this report is itself of limited value, because mold is ubiquitous. It can be inferred, however, that Plaintiffs were reporting *visible mold*, which is manifestly not ubiquitous. Moreover, I can think of little reason to believe that a treating physician exercising ordinary care would seek independent verification of the presence of visible mold in a home when a patient has reported it. In any event, the Kristensens' reports of mold were corroborated by laboratory results, indicating "heavy" quantities of mold.

In addition, Defendants characterize Frye’s testimony as purely speculative because she failed to investigate whether there are any published acceptable mold exposure limits. As discussed earlier, however, the Fourth Circuit has rejected the notion that specific exposure levels must be evaluated to support a finding that a substance caused harm. *Westberry*, 178 F.3d at 264.

Defendants’ most substantial objection to Frye’s testimony is that she failed to consider other causes of Plaintiffs’ symptoms. According to Defendants, Frye conceded that she never considered whether Alex’s problems were unrelated to mold. Defs.’ Br. at 17. This is an overstatement. In fact, Frye testified that she did not consider whether Alex had an autoimmune disease,¹¹ or whether such a disease was actually the cause of his symptoms. Frye Dep. at 34–37. Moreover, Frye stated that she did not consider, and was not aware of, whether the children had any allergies. Frye Dep. at 49–50. On the other hand, it appears that Frye ruled out bacterial causes after discovering that antibiotics were ineffective to alleviate Kaia’s symptoms. Frye Dep. at 33–34; 45. I find that Frye’s testimony, on the whole, is reliable enough to withstand *Daubert* scrutiny, and it is therefore admissible at trial.

5. Dr. Andrew Elgort

Finally, Defendants argue that the opinion testimony offered by Dr. Andrew Elgort (“Elgort”), a licensed clinical psychologist, is irrelevant. Defendants expect Plaintiffs to offer Elgort’s testimony that Kaia’s behavioral and emotional issues were caused by mold exposure. Defendants object to such testimony, offering that Elgort admitted that his “work with Kaia had nothing to do with medical issues resulting from mold toxicity[.]” Elgort Dep. at 13:12–13, and that mold came up only “in passing” during the course of Kaia’s treatment. *Id.* at 12:17–18.

¹¹ Alex was diagnosed with an autoimmune disease in 2003, after Frye stopped treating Plaintiffs. Frye Dep. at 34.

Plaintiffs insist, however, that Elgort will not be asked to render any causation opinions. Pls.’ Br. at 39. Rather, he will render his diagnosis and state the emotional condition Kaia presented during her visits. *Id.* To that point, Elgort’s general diagnosis is that Kaia has an “adjustment disorder not otherwise specified” Elgort Dep. at 14:20.

I cannot agree that Elgort’s testimony is irrelevant. As stated above, Rule 401 liberally defines relevant evidence to include that which has “any tendency to make the existence of any [material fact] more probable or less probable than it would be without the evidence.” Fed. R. Evid. 401. In the instant case, Plaintiffs are seeking damages, in part, for emotional distress that they allege arose from, or is related to, the mold in the house. Compl. at 15. Whether Plaintiffs can connect that alleged emotional distress to Defendants’ alleged negligence, and do so in a compelling way, is not the question before the Court. Rather, the question is whether Elgore’s proposed testimony will help the trier of fact find it more or less probable that Plaintiffs suffered emotional damages. Because I find that Elgore’s testimony does tend to support these contested factual points, his testimony is relevant and therefore admissible.

6. Conclusions on Defendants’ Motions in Limine

I am generally not persuaded by Defendants’ objections. Although several of the varied criticisms that Defendants assert against Plaintiffs’ experts have support in relevant literature, I also find support for the methods used, and the conclusions drawn by, Plaintiffs’ experts. I note also that the criticisms leveled against Plaintiffs’ experts are of the sort that should be readily comprehensible by the jury. Given the liberal thrust of the Federal Rules of Evidence, I do not find merit in the arguments to exclude the opinion testimony of Vance, Vilseck, Lipsey, Frye, or Elgort. Accordingly, I will deny Defendants’ Motion in Limine.

B. Plaintiffs' Motion to Exclude Dr. Sawyer as Irrelevant and Prejudicial

Also pending before the Court is Plaintiffs' Motion in Limine to Exclude the Testimony of Proposed Defense Expert Dr. Daniel Sawyer ("Sawyer"). (docket no. 139). Sawyer treated Plaintiffs' mother, Susan Kristensen ("Susan") for some five years. For the reasons set forth below, I will deny Plaintiffs' Motion.

Generally, all relevant evidence is admissible. Fed. R. Evid. 402. "'Relevant evidence' means evidence having any tendency to make the existence of any fact that is of consequence to the determination of the action more probable or less probable than it would be without the evidence." Fed. R. Evid. 401. On the other hand, relevant evidence "may be excluded if its probative value is substantially outweighed by the danger of unfair prejudice, confusion of the issues, or misleading the jury, or by considerations of . . . waste of time" Fed. R. Evid. 403. "The advisory committee's note and controlling authority interpreting the Rule define unfair prejudice as 'an undue tendency to suggest decision on an improper basis, commonly, though not necessarily, an emotional one.' Moreover, evidence must be excluded under Rule 403 if there is a genuine risk, 'disproportionate to the probative value of the offered evidence . . . that the emotions of a jury will be excited to irrational behavior.'" *United States v Smallwood*, 306 F. Supp. 2d 582, 588 (E.D. Va. 2004) (citation omitted).

Plaintiffs intend to introduce evidence of Susan's ailments to compare the temporal proximity of the onset of her symptoms with the temporal proximity of her children's symptoms. Close temporal proximity, Plaintiffs' theory goes, could suggest that the same environmental stimuli caused the same ailments in Plaintiffs and their mother. *See Westberry*, 178 F.3d at 265 ("[D]epending on the circumstances, a temporal relationship between exposure to a substance

and the onset of a disease . . . can provide compelling evidence of causation[.]”¹² Defendants intend to call Sawyer, who was once Susan’s treating physician, to attack her credibility by showing that some or all of her claimed symptoms can be attributed to somatiform disorder, or contrivance for secondary gain. If Sawyer were called to so testify, Plaintiffs would then seek to introduce evidence that the Social Security Administration has awarded Susan disability, and that other medical professionals disagree with Sawyer’s conclusions. Plaintiffs thus raise the concern that allowing Sawyer to testify would result in a trial within a trial. Moreover, they argue that because Susan’s illness is not directly at issue, focusing attention on her credibility could bias the jurors one way or the other, depending on their impression of the credibility contest. Plaintiffs also attack the probative value of Sawyer’s testimony, since he began treating Susan in 2003, after she left the subject residence.

Defendants respond, in part, that Plaintiffs are putting Susan’s credibility in issue themselves. Although Defendants question the relevance of Susan’s anticipated testimony, they contend that if she is allowed to testify, then they must be permitted to attack her credibility by presenting contradictory evidence. Moreover, Defendants contend that whether Susan’s reported false symptoms “goes to the very heart of whether the plaintiffs were, in fact, ill.” Defs.’ Opp’n at 6. Defendants accurately point out that many of the treating physicians and experts in this case based their opinions on the Plaintiffs’ medical history that Susan provided.

I find that whether Susan contemporaneously suffered the same symptoms as the Plaintiffs is an important issue in this case, and it merits attention. Several of Plaintiffs’ experts

¹² Defendants correctly point out that *Westberry* does not speak specifically of the temporal relationship between the onset of a plaintiff’s injury and that of a third party. While that is true, it stands to reason that where two people come down with the same ailment, and were exposed to the same pathogens, a causal relationship between the pathogens and the ailment could be inferred.

rely heavily on the theory—which Defendants contest—that multiple members of the family, including Susan, suffered symptoms consistent with those of her children.

Moreover, Rule 403, by its terms, only allows me to exclude evidence when the “probative value [of that evidence] is *substantially outweighed* by the danger of unfair prejudice, confusion of the issues, or misleading the jury, or by considerations of undue delay” Fed. R. Evid. 403 (emphasis added). While I find that there is some danger of setting off a trial within a trial, that danger is not substantially outweighed by the probative value of this evidence, which I find could be quite high. Finally, the danger of prejudice could be addressed through limiting instructions, which I will issue, as necessary.

C. Plaintiffs’ *Daubert* Motion to Exclude Dr. Sawyer

Having found that Sawyer’s testimony is relevant and not unduly prejudicial to warrant exclusion under Rule 403, I next consider whether the testimony is reliable enough to pass muster under Rule 702 and *Daubert*.

1. *Daubert*’s Application in the First Instance

Defendants first argue that a *Daubert* analysis is unnecessary, given their characterization of Sawyer’s proposed testimony, which they argue is merely to “demonstrate bias and to impeach Ms. Kristensen if the [P]laintiffs put her medical history in issue.” Defs.’ Resp. at 4. Implied in this argument is the suggestion that Sawyer will not base his opinion testimony on scientific, technical, or other knowledge of the sort governed by Rule 702.

Trial courts within the Fourth Circuit have found, however, that a “treating physician’s diagnoses, prognoses, or similar conclusions as to the patient’s condition are ‘based upon scientific, technical, or other specialized knowledge, and, as such are outside the scope of Rule 701’” *Ingram v. ABC Supply Co.*, No. 3:08–1748–JFA, 2010 WL 233859 (D.S.C. Jan. 14,

2010) (quoting *Aumand v. Dartmouth Hitchcock Med. Ctr.*, 611 F. Supp. 2d 78, 89 (D.N.H. 2009)). If such testimony falls outside the scope of Rule 701 (governing non-expert testimony), it necessarily falls inside the scope of Rule 702 (governing expert testimony). Indeed, Defendants belie their own argument to some extent, having already listed Sawyer as an expert witness (docket no. 72), as noted above.

Even accepting Defendants’ argument that Sawyer does not intend to testify as to the causation of Susan’s alleged symptoms, and instead just intends to impeach Susan to show her bias, Sawyer’s deposition reveals that his opinions are invariably based on his specialized medical knowledge as applied to his patient. So while a treating physician “may provide expert testimony regarding a patient’s illness, the appropriate diagnosis for that illness, and the cause of the illness[,] . . . [the] treating physician’s testimony remains subject to the requirement[s] set forth in *Daubert*” *Gass v. Marriott Hotel Servs., Inc.*, 558 F.3d 419, 426 (6th Cir. 2009) (citing *Fielden v. CSX Transp., Inc.*, 482 F.3d 866, 870 (6th Cir. 2007)).

Defendants argue that because Sawyer is offering neither a causation opinion nor a differential diagnosis, he is therefore not subject to a *Daubert* analysis. As mentioned above, however, an opinion on causation is not the only variety of testimony that is subject to *Daubert* scrutiny. Defendants hope to have Sawyer testify to Susan’s inconsistent presentation of symptoms, swings in her temperament, his own and other doctors’ inability to settle on a clear diagnosis, and, ultimately, his belief that Susan’s contrived her symptoms for secondary gain.¹³ These sorts of opinions inexorably proceed from scientific—medical—knowledge. While it is certainly possible that Sawyer might testify, in some part, as a mere fact witness recounting his non-technical observations of his patient, his testimony regarding any medical conclusions he

¹³ Presumably, at least part of the “secondary gain” to which Sawyer refers is the compensation Plaintiffs seek to gain through the instant lawsuit.

has drawn from those observations over the years requires that he first undergo and pass a *Daubert* analysis, ensuring that his testimony is reliable.

Moreover, it can be argued that “contrivance for secondary gain” is indeed a causation opinion in itself. That is, in Sawyer’s opinion, the *causes* of Susan’s symptoms are her “histrionic” nature and her possible contrivance for secondary gain. Sawyer Dep. at 45:22. This last point just serves to reinforce the conclusion that Sawyer’s testimony, however Defendants choose to characterize it, is indeed that of an expert witness applying scientific, technical, or other specialized knowledge, and is subject to a *Daubert*-style analysis.

2. *Daubert* Analysis Applied to Sawyer

Having concluded that Sawyer is an expert testifying from scientific, technical, or other specialized knowledge, and is therefore subject to the analysis set forth in *Daubert*, I must next consider whether or not his opinion testimony can satisfy the *Daubert* requirements for admissibility. Plaintiffs essentially put forth two arguments by which they ask the Court to exclude Sawyer’s opinions and diagnoses under *Daubert* and Rule 702: (1) that Sawyer, as part of his differential diagnosis, failed to rule out mold exposure and other possible explanations as the cause of Susan’s alleged symptoms (Pls.’ Mem. at A–B); and (2) that Sawyer’s opinion specifically regarding Susan’s psychological condition is unsupported and outside his area of expertise (Pls.’ Mem. at C).

In their Response, Defendants point to Dr. Sawyer’s familiarity with his patient, citing the fact that Susan appeared before him between seventy-two and seventy-five times over the course of several years. (Defs.’ Resp. at 5). Defendants argue that Dr. Sawyer “[s]urely . . . employed a high degree of intellectual rigor in his examination[s],” but Defendants do so in a conclusory fashion. Citing the fact that “[m]edical doctors have been examining patients since

the beginning of the profession[.]” Defendants essentially aver that a long-time treating physician like Dr. Sawyer automatically meets the *Daubert* admissibility criteria. *See* Defs.’ Resp. at 5.

It should also be noted that, as a matter of semantics, Defendants do not concede that Sawyer is even offering a “differential diagnosis” or a “causation opinion.” (Defs.’ Resp. at 2). In contesting this point, Defendants apparently seek to exempt Sawyer’s opinion testimony from the analysis set forth in other cases meant to ensure the reliability of such testimony.

I find that (1) Sawyer’s testimony that he was unable to clearly diagnose Susan over five years does, in fact, constitute a differential diagnosis, and his testimony to that effect does pass *Daubert* muster; however (2) Sawyer cannot be permitted to offer any specific opinion regarding Susan’s psychological or psychiatric condition.

a. Sawyer’s Differential Diagnosis

First, Defendants’ argument that Sawyer does not purport to offer a differential diagnosis is unavailing. The Fourth Circuit has defined a differential diagnosis as “a standard scientific technique of identifying the cause of a medical problem . . . by determining the possible causes for the patient’s symptoms and then eliminating each of these potential causes until reaching one that cannot be ruled out or determining which of those that cannot be excluded is the most likely.” *Westberry*, 178 F.3d at 262. Although Sawyer was unable to settle on *one specific* diagnosis for Susan (Dep. at 23:20), the process described in his deposition makes it clear that he observed her clinical symptoms, and discussed those symptoms in conjunction with various test results with numerous sub-specialists. (Dep. at 23:1–3). The clear implication from Sawyer’s statements is that his evaluations resulted in some systematic elimination of the possible causes of Susan’s alleged symptoms. Sawyer’s testimony could even be interpreted to say that his

differential diagnosis excluded *all* causes of medical illness, such that his final diagnosis is that Susan is faking her symptoms.

Having established that Dr. Sawyer's methodology does constitute that of a "differential diagnosis," I must next determine whether or not his methodology is reliable enough for admission under *Daubert*.

At the outset, weighing in Defendants' favor is the fact that courts tend to look with more skepticism upon treating physicians, unlike Sawyer, who begin treatment when the prospect of future litigation already exists. *See, e.g., Perkins*, 626 F. Supp. 2d at 593. Nevertheless, the blanket proposition Defendants set forth—that a long-time treating physician automatically withstands *Daubert* scrutiny—is not well supported by case law in the Fourth Circuit. Instead, "the plain language of the *Daubert* decision extends the threshold requirement of reliability to 'any and all' medical testimony, including that of treating physicians." *Id.* at 592 n.7 (internal quotations admitted).

And so this Court must closely investigate the particulars of Sawyer's treatment as it compares to his proposed testimony. In determining whether a treating physician's testimony is reliable, one factor trial courts might consider is whether or not the physician merely adopted a patient's theory, or whether, instead, the physician actually employed "the same level of intellectual rigor that characterizes the practice of an expert in the relevant field." *Id.* at 592 (quoting *Kumho*, 526 U.S. at 152); *see also Bowers v. Norfolk S. Corp.*, 537 F. Supp. 2d 1343, 1357 (M.D. Ga. 2007) (holding that a treating physician's adoption of a patient's theory of causation does not meet the requirement set forth by the advisory committee notes to Rule 702 that an expert be as careful as he would be in his regular professional work, outside the context of any paid litigation consulting).

The Fourth Circuit has described a *reliable* differential diagnosis as typically, though not invariably, including physical examinations, the taking of medical histories, and the review of clinical tests, including laboratory test results. *Westberry*, 178 F.3d at 263. The physician, then, considers “the possible causes for the patient's symptoms and then eliminate[s] each of these potential causes until reaching one that cannot be ruled out or determining which of those that cannot be excluded is the most likely.” *Id.*

In the instant case, it is abundantly clear that Sawyer did not merely adopt Susan’s theory of the cause of her symptoms. On the contrary, it would appear that Sawyer eventually came to suspect that Susan might have an agenda, and perhaps did what she could to exhibit symptoms she thought to be consistent with toxic mold exposure. Sawyer grew skeptical over time, and looked well beyond Susan’s own medical theories, rigorously scrutinizing her symptoms. Sawyer ultimately concluded that she may have been faking, at least to some extent.

Moreover, Sawyer’s deposition testimony reveals a procedure consistent with that prescribed in *Westberry* for conducting a differential diagnosis that is reliable enough to withstand *Daubert* scrutiny. Susan appears to have visited Dr. Sawyer roughly seventy-five times, and Sawyer referenced the “multiple specialists” (Dep. at 44:9) and “sub-specialists” (Dep. at 23:3) to whom Susan had been referred. Considering his discussions with those specialists alongside Susan’s “test results” and “clinical symptoms,” (Dep. at 23:2), Sawyer concluded that he, and others, were not sure if Susan even had a real disease. When pressed in the deposition, he states his conclusion that Susan is merely “a histrionic sort of person.” (Dep. at 45:21–22).

In sum, it seems that over the course of Sawyer’s tenure serving as Susan’s treating physician, he undertook a process that is reliable under *Daubert*, as applied to differential

diagnoses by the Fourth Circuit in *Westberry*. Sawyer evaluated Susan’s symptoms, conducted clinical tests, and referred her to various specialists, all in an effort to rule in or rule out various conditions that might be causing the symptoms Susan alleged. Importantly, for purposes of the Plaintiffs’ case, Sawyer has noted that his opinion is that Susan’s symptoms have nothing to do with mold. (Dep. at 37:8–12). He appears to have reached that conclusion by undertaking methods long-accepted in the medical community. Sawyer’s opinion testimony regarding the differential diagnosis he conducted is therefore admissible at trial. To the extent that Plaintiffs wish to discredit Sawyer’s conclusions, traditional methods of cross-examination and the introduction of their own expert testimony will be sufficient.

b. Sawyer’s Psychological¹⁴ Opinions

I am convinced, however, by Plaintiffs’ argument that Sawyer’s opinion regarding any specific psychological or psychiatric diagnosis for Susan is unsupported and outside his area of expertise. Sawyer has more or less admitted as much throughout his deposition. (Dep. at 44–46).

Sawyer’s deposition reveals that he believes, at bottom, that Susan’s symptoms are the result of “some sort of psychiatric diagnosis, rather than medical.” (Dep. at 46:1–3). Sawyer may testify to that general impression consistent with the *Daubert* analysis provided above. That is, Sawyer appears to have relied upon accepted differential diagnosis methods to exclude medical explanations for Susan’s symptoms; however, his testimony must not extend any further to include a particular psychiatric diagnosis. In his deposition, Sawyer mentioned his sense that “Susan has a . . . bipolar illness or something of that kind[,]” (Dep. at 45:23–25), but Sawyer had already qualified his expertise in that area, agreeing with his questioner that he did not purport to

¹⁴ Plaintiffs’ Memorandum, citing Sawyer’s deposition, uses the terms “psychiatric” and “psychological” without distinction, apparently using one or the other to generally mean both. I do the same herein.

render any psychiatric opinions (Dep. at 44–45). Because it does not appear that his opinion regarding Susan’s psychological or psychiatric condition rests on reliable methods, I hold that Sawyer must not be permitted to testify about any specific mental health diagnosis.

3. Conclusions on Sawyer’s Reliability

Defendants’ argument that Sawyer’s testimony is outside the scope of a *Daubert* inquiry is unconvincing; even a long-time treating physician like Sawyer must withstand *Daubert* scrutiny if he seeks to provide testimony based on scientific, technical, or other specialized knowledge, as here. That said, the methodology that Sawyer applied over Susan’s approximately seventy-five visits, to include clinical testing and referral and conference with specialists, meets the *Daubert* standard. Over time, Sawyer came to exclude many possible diagnoses, leaving him with the conclusion that no medical explanation for Susan’s symptoms existed. His testimony to that effect is admissible.

Nevertheless, the scope of Sawyer’s testimony must carefully circumscribed, and his opinion testimony should stop short of suggesting that Susan suffers from bipolarity or another specific psychological or psychiatric malady. Sawyer admits to leaving any such diagnosis to those more qualified than him. While his opinion testimony that Susan’s symptoms are more psychological than medical are admissible as a general matter because Sawyer has sufficiently ruled out medical explanations, his testimony must stop short of a providing a specific psychological or psychiatric theory.

IV. CONCLUSION

For the foregoing reasons, Defendants’ Motion in Limine to exclude Dr. Leonard Vance, Dr. Joseph Vilseck, Dr. Richard Lipsey, Dr. Elizabeth Frye, and Dr. Andrew Elgort (docket no. 121) is DENIED. Plaintiffs’ Motion in Limine to exclude Dr. Daniel Sawyer as irrelevant,

inflammatory, and not probative of the issues at trial (docket no. 139) is DENIED. Plaintiffs' Motion in Limine to exclude the testimony of Dr. Daniel Sawyer pursuant to *Daubert* and Rule 702 (docket no. 144) is DENIED in part and GRANTED in part.

The Clerk of the Court is directed to send a certified copy of this Memorandum Opinion and accompanying Order to all counsel of record.

Entered this 21st day of September, 2011.

/s/ Norman K. Moon
NORMAN K. MOON
UNITED STATES DISTRICT JUDGE